

NOTES ON THE COLEOPTERA OF NORTH-WESTERN  
VICTORIA.

## PART VIII.

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**SCARABÆIDÆ** (*continued*).

## SUB-FAMILY CETONIDES.

2574. *Chlorobapta* (*Schizorrhina*) *frontalis*, Don.  
 2583. *Trichaulax* (*Schizorrhina*) *philipsii*, Schrieb.  
 2601. *Diaphonia* (*Hemichnoodes*) *mniszeczkii*, Jans.  
 2605. *Metallesthes* *metallescens*, White.  
 2606. *Pseudoclitiria* (*Metallesthes*) *ruficornis*, Westw.

The Cetonides are a favourite group with collectors, some of them being amongst the most beautiful of Australian beetles. Mr. Lea has published a fine monograph dealing with the group. Writing of *C. frontalis* he says:—"This common and widely distributed species is the most variable of all the Australian Cetonides." It is black, with green and yellow markings on the elytra and prothorax. It breeds in hollow trees, emerging in the perfect state in January.

*T. philipsii*, about the same size as the preceding (seven-eighths of an inch), is a much rarer species. My single specimen, taken on the blossoms of a grey box tree, has the prothorax and scutellum dark red. The five ridges on the elytra are shining black, the grooves between clothed with short greyish hairs.

*D. mniszeczkii* is a fine large beetle, up to 1½ inches in length, of a pale straw colour, with a large dark trapeziform mark on the prothorax. Mr. Lea remarks:—"The male of this fine species (which occurs from the Mallee districts of Victoria to the coast of Western Australia as far north as Geraldton) may be readily distinguished from all the Australian Cetonides by the dense clothing of the pygidium and under surface and by the deep impression occupying the greater portion of the abdomen." About twelve years ago this species appeared in fair numbers, feeding on the mallee blossom, but has not been seen since.

*M. metallescens* is black, with a metallic gloss, and is about three-quarters of an inch long. I once saw a number of these beetles flying round the tops of a clump of the "Sand-hill" or "Scrub" Pine, *Callitris verrucosa*. They were being chased and captured by several of the large and powerful "Robber Flies," *Phellus glaucus*, but in every instance after being caught and examined the beetles were released and flew away apparently unhurt.

*P. ruficornis* is a smaller and rare species. The head and

prothorax black, with a metallic gloss; the elytra piceous, with a bronzy metallic tint. My specimens were taken on low scrub.

### BUPRESTIDÆ.

The beauty of form and colour of the Buprestidæ is well known, and excites the admiration of all. Naturally, collectors of coleoptera are particularly keen on them, and cheerfully face the discomforts of the hottest day in the bush in the hope of adding to the collection. They are essentially beetles of the summer, occurring mostly during the months of November, December, and January. In this district many of the species frequent the tops of the mallee scrub when the latter is in blossom, and are captured by carefully bending down the slender tops with the aid of a long hooked stick and shaking them into an expanded umbrella. Low bushes and shrubs, such as acacias, &c., are also favoured by them, and some species are only to be found on a particular species of shrub.

The wood-boring larvæ—elongate, somewhat flattened grubs, having the thoracic segments greatly enlarged—tunnel in the roots, stems, and branches of various trees and shrubs.

In 1916 Mr. H. J. Carter, of Sydney, the well-known authority on Buprestidæ, contributed a paper to the Royal Society of South Australia, entitled "Revision of the Genus *Stigmodera*, and Descriptions of Some New Species of Buprestidæ."\* In this valuable memoir, which should be in the hands of every student of the group, the author tabulates no less than 318 species of *Stigmodera*, and this after 204 names have been sunk as synonyms!

In compiling the list of local species I have included all the synonyms as given by Mr. Carter, and have followed his arrangement of the species of *Stigmodera* under the sub-genera *Themognatha* and *Castiarina*, none of the typical *Stigmoderæ* of Kerremans being found in this region. The numbers given are those of Masters's "Catalogue."

2623. *Diadoxus erythrus*, White.

2624. *D. scalaris*, L. and G.

These common and handsomely marked species appear to breed exclusively in the Murray pine.

*Astræus irregularis*, V. de Poll.

An extremely rare species, about three-quarters of an inch long. The head and prothorax are dull purple, with yellow spots; the elytra yellow, with bluish markings, forming a curious intricate pattern. It was described by Van de Poll from a unique specimen in his collection. One of my speci-

\* "Transactions of the Royal Society of South Australia," vol. xl., 1916.

mens was taken (at Birchip) in its tunnel in a branch of the "bull-oak," *Casuarina Luehmanni*. Two others were taken on the foliage of the same tree at Green Lake, near Sea Lake, 25/1/16.

*A. major*, Blackb.

This also is a beetle rarely met with. It is about the same length but more robust than *irregularis*, the prothorax black or bluish, the elytra yellow, with three broad transverse blue bands, and a small red spot at the apex of each elytron. Taken on mallee foliage in October.

*Bubastes*, sp.

One species at least of this fine genus occurs here, but, owing to the similarity of the species to each other, it is difficult to identify them. The head and ample prothorax are blue, the ribbed elytra coppery, without markings. It is nearly an inch in length, and is found on mallee shoots in February.

*Strigoptera australis*, Blackb.

A handsome beetle measuring about an inch, with prothorax and under parts purple and the ribbed elytra dark green. Twenty years ago it used to occur in considerable numbers in the Birchip district, appearing about the middle of January, when it would be found in the mornings clinging to the wheat stubble, low mallee shoots, &c. At that time I sent many specimens to Mr. C. French, F.L.S., whose collection of Buprestidæ (now in the National Museum) is one of the finest in Australia.

2671. *Melobasis cupreovittata*, Sud. = *vittigera*, Thoms.

*M. gratiosissima*, Thoms.

2681. *M. nervosa*, Boisd. (?)

2689. *M. sexplagiata*, L. and G.

2691. *M. splendida*, Don.

These are small species, *M. cupreovittata*, a little over half an inch, being the largest, but they are very handsome, the rich combination of brilliant metallic tints being very striking. They are found on acacias and other small shrubs, and on eucalypt blossoms. *M. splendida* is fairly common, but is only taken on the Turpentine or Rosin-bush, *Beyeria viscosa* (?), in this district.

*Anilava platessa*, Thoms.

*A. uniformis*, Kerr.

Very small, dull-coloured species, often found amongst dry leaves.

2704. *Necuris asperipennis*, Fairm.

2707. *N. dichroa*, Fairm.

2708. *N. discolorata*, Fairm.

These small and rare beetles are seldom taken in the open, most of my specimens having been cut out of the wood of a tree locally known as the "dogwood." In early November this tree is covered with a profusion of beautiful white blossoms, on which insects of many kinds come to feed.

2718. *Curis aurifera*, L. and G.

2723. *C. corusca*, Waterh.

2730. *C. viridicyanea*, Fairm.

The species of *Curis* are much sought after by collectors on account of their beauty and scarcity. *C. aurifera*, about half an inch long, is blue and gold; *C. corusca*, a larger species, is brilliant metallic green, with coppery reflections; and *C. viridicyanea* has the prothorax blue, the elytra of a vivid deep green. I have taken it on the foliage of the Quondong, *Fusanus acuminatus*, in November.

2738. *Julodimorpha bakewellii*, White.

A fine species, one of the giants of the group, measuring  $2\frac{1}{4}$  inches in length. The head is green, prothorax red, the deeply-pitted and ribbed elytra yellow. I have never met with it in the district, but Mr. H. W. Davey, F.E.S., informed me that he had seen specimens from Lake Tyrrell.

#### GENUS STIGMODERA.

"Sub-genus B.—THEMOGNATHA: elytra striate, tarsal hooks lobed or toothed at base."

2838. *Themognatha (Stigmodera) heros*, Gehin.

This is another of our largest species, some examples being  $2\frac{3}{8}$  inches long by an inch broad. It varies from light to dark reddish-brown, with strong costæ on the elytra; the under side is dull metallic bronzy-green. Some seasons they appear in considerable numbers, then for two or three years none will be seen. It is a fine sight to see perhaps a score of these big beetles soaring majestically around, the loud, musical hum of their wings being audible at a distance of 50 yards. They are often killed by a large blue "robber fly," *Phellus glaucus*, which catches them on the wing, and drives its dagger-like proboscis deep into the soft integument between the prothorax and elytra. It then flies easily with its load, which is much heavier than itself, to the nearest post or tree, and proceeds to suck its victim dry.

2889. *T. parryi*, Hope, *fusca*, Snd., *parvicollis*, Snd., *major*, Waterh., *picea*, Kerr.

This is a much rarer beetle than *heros*. It is met with on low bushes in cultivation paddocks. Fresh specimens have considerable pubescence about the head and prothorax. It is an inch and a half in length, and of a dark brown colour.

2811. *T. donovani*, L. and G., *jansonii*, Snd.

A specimen of this is from the Murray, near Euston. It has the prothorax bronzy-green, with the margins yellow; elytra yellow, becoming red near apex.

2970. *T. vitticollis*, Macl., *delia*, Thoms., *fallaciosa*, Kerr.

Also from the last-named locality. This species is reddish-yellow: the centre of prothorax has a vertical black stripe. The rather broadly rounded apex of elytra is black, and there is a narrow black transverse bar about apical third.

2828. *T. fortnumi*, Hope.

A fine, showy species, extremely rare locally. A specimen was taken at Birchip over twenty years ago by Mr. D. Goudie. It was flying amongst a grove of bull-oak trees; it measures  $1\frac{1}{2}$  inches in length, and is yellow, with the disc of prothorax and three broad bands on the elytra dark blue. While splitting posts and rails, &c., from the bull-oak timber I have found many insects, such as Longicornes, Buprestids, larvæ of wood moths, &c., but searched in vain for *fortnumi*. In several cases, however, the workings or tunnels of some large larva were traced, but these ended in the large oval exit-hole through which the beetle had previously emerged.

Sub-genus C.—CASTIARINA: elytra striate-punctate, tarsal hooks simple.

2945. *C. testacea*, Snd.

2874. *C. moribunda*, Snd., *dispar*, Blackb. (?)

2820. *C. flava*, Snd., *flavescens*, Thoms., *flavidula*, Kerr.

These are small beetles half an inch or less in length; *moribunda* has the prothorax and under parts bright green, elytra reddish-yellow.

2766. *C. bimaculata*, Snd., *punctiventris*, Snd., *guttata*, Blackb., var.—(1) *minor*, Blackb., (2) *ignea*, Blackb.

An extremely variable species, both in size and colour. It varies from less than half an inch to nearly an inch in length. The prothorax may be either bright green, bronzy, or coppery, while the elytra vary from pale yellow without markings (these have the bright green prothorax) to bright red, with strong black, blue, or green markings.

2876. *C. mustelamajor*, Thoms., *gibbosa*, Macl.

2826. *C. flavosignata*, Macl., var.

2816. *C. elongatula*, Macl.

2804. *C. decemmaculata*, Kirby, *inequalis*, Kerr.

2969. *C. vittata*, Snd.

The last three named are fairly common species, being found on flowering shrubs on white sand-hills. They are narrow and

elongate. The other two are rare. All are small—half an inch or less.

2882. *C. auricollis*, L. and G., var. *ochreiventris*, Snd., *strigata*, MacL.

A rare beetle. My specimen has the prothorax dark purplish-blue, elytra light yellow, with the apex and six spots (two of which are on the suture) blue. In the typical examples I believe the spots are replaced by transverse bands, but all that I have seen from this district were marked with spots, as described above. Taken on grey box blossom in December.

2825. *C. flavopicta*, Bois., *bicolor*, L. and G., *colorata*, Hope.

2935. *C. simulata*, L. and G., *helenæ*, Hope, var. *phryne*, Thoms., var. *lais*, Thoms., var. *tiramosa*, Thoms., *distinguenda*, Thoms., *fraterna*, Kerr.

This prettily-marked and variable species with the heavy burden of names is found on the "broom" tea-tree in the white sand-hill country.

2849. *C. jekelli*, Snd.

Very similar to some forms of *bimaculata*, but "apices of elytra with minute excision, not bispinose."

2831. *C. gibbicollis*, Snd., *fascigera*, Kerr.

This red and black species used to be fairly common in the Birchip district, but I have never taken it except on the "dogwood" blossom.

2867. *C. marginicollis*, Snd.

A fine and rare beetle. It is about  $\frac{5}{8}$  of an inch in length : dark yellow, with wide black transverse bars.

2911. *C. robusta*, Snd.

About the same size as preceding. It has the prothorax blue, elytra bright red—in some with apex and two sutural spots blue, in others with transverse blue bands.

*C. pisciformis*, Carter, Tr. Roy. Soc. S. Aust., vol. xl., 1916, page 125, Pl. x., fig. 20.

Very similar in general appearance to *T. thomsoni*, but the black markings not so broad, also "differs from the latter besides markings in less sinuate and more attenuated form, and its flat and distinctly punctate elytral intervals."

*C. cara*, Black (?), *placens*, Kerr.

I have two specimens which probably represent this species. They are yellow, with black transverse bands and bronzy prothorax, and measure about  $\frac{5}{8}$  of an inch.

2775. *C. castelnaudi*, Snd., *thomsoniana*, Masters, *laportei*, Kerr.

A study in brilliant red and blue. In some specimens the

transverse markings are green instead of blue. It is  $\frac{3}{4}$  of an inch long. One of the finest of Mallee beetles.

*C. signata*, Kerr.

A small yellow and black species, fairly common in some seasons on the mallee blossom. "May be a variety of *distinguenda*, Snd."

*C. cremita*, Blackb., var.

This is a pretty yellow and blue species, slightly over half an inch in length. The prothorax has narrow yellow margins

2981. *Merimna (Chrysobothris) atrata*, L. and G.

A common and widely spread species, known in many places as the "fire-beetle," from a curious penchant it has for the vicinity of fires. A burning tree or log is a favourite place on which to settle, and it will even fly indoors to the fireplace. It is entirely black, with slightly ribbed elytra, and measures up to  $1\frac{1}{4}$  inches.

*Ethon*.

Two species of this genus (unidentified) occur in the Sea Lake district.

3012. *Cisseis nubeculosa*, Germ. (?)

The species of *Cisseis* are pretty little beetles, found usually on wattle scrub.

3026. *Paracephala pistacina*, Hope.

This is a small species, less than  $\frac{1}{4}$  of an inch. It is metallic bronze-coloured, and was found abundantly on grass-stalks.

*Germanica lilliputana*, Thoms.

As its name indicates, this is a very small beetle, measuring only 2 mm. It is generally (if not exclusively) taken on the foliage of the Casuarinas.

3028. *Agrilus australasie*, L. and G.

A narrow, coppery-brown species, about  $\frac{3}{8}$  of an inch in length, having whitish pubescence on the under side.

**BORONIA PINNATA.**—In November, 1917, Mr. P. R. H. St. John obtained from Labertouche a supply of *Boronia pinnata*, Smith, when in flower, from which he distilled a small quantity of oil. This was submitted to Mr. Hy. G. Smith, F.C.S., of the Technological Museum, Sydney, who has recently published in the "Proc. Roy. Soc. Vict." (vol. xxxii., n.s., p. 14) the result of his examination of the oil. This shows that about 70 per cent. of the oil consists of Elemicin, a somewhat rare plant product, hitherto found only in a Manila plant, *Canarium commune*, L., belonging to the order Burseraceæ, an order far removed from the Rutaceæ, to which the *Boronia* belongs, in the usual arrangement of botanical species.